PAGE
Compressors for Aircraft Gas Turbines (Reprint) 455
Compressors, Radial Versus Axial (Reprint) 444
Computer Component, Another New High-Precision, Universal-Frequency, by Donald Herr, John Love and Norman Blumenstock 161
Computers, Two New Economical, for the Design and Analysis of Servomechanisms, Networks, Amplifiers and Analogous Dynamical Systems, by Donald Herr 851
Cooling of Electronic Apparatus at High Altitudes (Reprint) 677
Corrosion, Fundamental Researches on (Reprint) 646
Cowdrey, R. T.: The Mobilization Picture Today 343
Critical Review of Gas Turbine Progress (Reprint) 640
Cubic and Higher Equations and Roots, Engineer's Shortcut Solves (Reprint) 623
Current Welding Research Problems (Reprint) 991
Deaths:
George E. Breece, Civil Member
James Briscoe, Associate Member
Logan Cresap, Naval Member
P. F. Gibson, Naval Member
Chester M. Roe, Civil Member
Norman Wallace Stirling, Naval Member
Hollis Walter, Civil Member
J. G. Wilson, Civil Member 276
Reginald Norman, Associate
H. A. K. Lay, Associate 733
Charles H. Fike, Civil
Howard E. Scofield, Associate
Joseph A. Meaney, Civil 1040
Deduction, Thrust, by George P. Weinblum 363
Deep Sea Sounding Methods, Evolution of, by Henry C. Bailey 349
Denny-Brown Stabilizing Gear in the P. and O. Twin-Screw Passenger Liner *Chusan* (Reprint) 460
Deposits, Water-Formed, Distinguishing Characteristics of, by Frank E. Clarke 153
Design, New, Stability Curves for, by Stanislaw R. Uniechowski 311
Designated Engineering Duty Only, Staff Article 751
Developing Critical Shortage of Engineers (Reprint) 616
Diesel Engine Development, Trends in, by E. C. Magdeburger 889
Diesel-Engine Fuels, Purification of in Relation to Cylinder Liner Wear (Reprint) 1013
Distinguishing Characteristics of Water-Formed Deposits, by Frank E. Clarke 153
Education, American Engineering, Welding in (Reprint) 1019
Effects of Scale and Roughness on Free Running Propellers, by Hermann W. Lerbs 58

PAGE

Eitel, W. W., and J. H. Potter, Thermal Bolt Stress Study in a High-Pressure Flanged Pipe Joint ..... 541
Electronic Apparatus, Cooling of at High Altitudes (Reprint) ..... 677
Electronics, Naval, Magnetic Amplifiers, A Rising Star in, by A. M. Vincent ..... 903
Electronics, Some Prospects in the Field of (Reprint) ..... 405
Engineering Duty Only, Designated, Staff Article ..... 751
Engineer's Shortcut Solves Cubic and Higher Equations and Roots (Reprint) ..... 623
Erratum ..... 273
Evolution of Deep Sea Sounding Methods, by Henry C. Bailey ..... 349
Factors Affecting Superheat Control (Reprint) ..... 596
Fleet Maintenance, U. S., and Battle-Damage Repairs in the Pacific During World War II, by Ralph K. James ..... 767
Freedom to Measure: Yards or Meters? (Reprint) ..... 984
Fundamental Researches on Corrosion (Reprint) ..... 646
Funnel Design and Smoke Abatement (Reprint) ..... 704
Further Developments in the Burning of Boiler Fuels in Marine Diesel Engines (Reprint) ..... 201
Gas Turbine Progress, Critical Review of (Reprint) ..... 640
Gas Turbines, Aircraft, Compressors for (Reprint) ..... 455
Gas Turbines, Prospects of in Naval Application (Reprint) ..... 173
Gas Turbine, Rover (Reprint) ..... 476
Geared Diesel Installations, Torsional Vibration Problems of (Reprint) 634
Gearing, Naval, War Experience and Present Development (Reprint) ..... 651
Grad, Arthur, and Charles W. Harrison, Jr.; Optimum Length of a Resonant Radio Frequency Transmission Line to Maximize Power Transfer ..... 129
Hack, John A.: Management by Exception—The Navy Way ..... 891
Hard Facing of Steam Valve Seats and Disks (Reprint) ..... 488
Harrison, Charles W., Jr.; Symmetrically Folded Antenna ..... 53
Harrison, Charles W., Jr., and Arthur Grad; Optimum Length of a Resonant Radio Frequency Transmission Line to Maximize Power Transfer ..... 129
Harrison, R. E. W., New Naval Industrial Engineering Organization ..... 109
Hazards of Synthetic Plastics (Reprint) ..... 471
Herr, Donald; Two New Economical Computers for the Design and Analysis of Servomechanisms, Networks, Amplifiers and Analogous Dynamical Systems ..... 851
Herr, Donald, John Love and Norman Blumenstock; Another New High-Precision, Universal-Frequency Computer Component ..... 161
High-Pressure Flanged Pipe Joint; Thermal Bolt Stress Study in, by J. H. Potter and W. W. Eitel ..... 541
Hill, G. R.; Probing the Atmosphere with Rockets ..... 293

PAGE

Hose, Rubber, Used in the Navy, by E. A. Bukzin ..... 569
Icebreakers, Russia's, by Bernard M. Kassell ..... 137
Internal-Combustion Engines, Supercharging of (Reprint) ..... 480
James, Ralph K., U. S. Fleet Maintenance and Battle-Damage Repairs in the Pacific During World War II ..... 767
Jasper, Norman H., Statistical Approach to the Measurement and Analysis of Experimental Data ..... 583
Kassell, Bernard M.: Russia's Icebreakers ..... 137
Russia's Submarine Development (1850-1918) ..... 831
Kelley, J. S., and R. G. Stiles, Radiometry and All-Weather Navigation 381
Kingsbury Thrust Bearing, Development of (Reprint) ..... 433
Kramer, Max Otto; Wave Drag of Ships ..... 575
Lamb, Carl J., Mobile Power Plant for Emergency Military or Civil Defense ..... 165
Lamb, Logistics as Seen by a Reserve Officer ..... 881
Launching, Utilization of Steel Balls for (Reprint) ..... 620
Lerbs, Hermann W.; Effects of Scale and Roughness on Free Running Propellers ..... 58
Logistics as Seen by a Reserve Officer, by Carl J. Lamb ..... 881
Love, John, and Donald Herr and Norman Blumenstock; Another New High-Precision, Universal-Frequency Computer Component ..... 161
Lumber and Plywood Used in Planking Naval Vessels, Recent Developments in Improving Marine Borer Resistance of, by Tom L. Shoemaker ..... 113
Macrogeometric Changes in Cylinder Form, Their Nature and Effect on the Operation of Internal Combustion Engines (Reprint) ..... 594
Magdeburger, E. C., Trends in Diesel Engine Development ..... 889
Magnetic Amplifiers, A Rising Star in Naval Electronics, by A. M. Vincent ..... 903
Management by Exception—The Navy Way, by John A. Hack ..... 891
Manpower Crisis in Naval Engineers, Meeting a, by Nathaniel Stewart 791
Marine Borer Resistance of Lumber and Plywood Used in Planking Naval Vessels, Recent Developments in Improving, by Tom L. Shoemaker ..... 113
Marine Diesel Engines, Further Developments in the Burning of Boiler Fuels in (Reprint) ..... 201
Marine Engineering, Technical Progress in During 1950 (Reprint) ..... 666
Materials (Reprint) ..... 423
Measurement and Analysis of Experimental Data, Statistical Approach to, by Norman H. Jasper ..... 583
Meeting a Manpower Crisis in Naval Engineering, by Nathaniel Stewart 791
Membership Changes ..... 277, 502, 738, 1041
Military Marine Wood Usage (Reprint) ..... 979
Mobile Power Plant for Emergency Military or Civil Defense, by Carl J. Lamb ..... 165

PAGE

Mobilization Picture Today, by R. T. Cowdrey ... 343
National Academy of Sciences and the National Research Council (Reprint) ... 389
National Security Resources Board in Mobilization Planning (Reprint) 183
Naval Gearing; War Experience and Present Development (Reprint) ... 651
Naval Engineers, Civilian Careers for, by Albert F. Bird ... 333
Navigation, All-Weather, Radiometry and, by J. S. Kelley and R. G. Stiles ... 381
New Essential for Victory at Sea, by G. P. Steele II ... 531
New High-Precision, Universal-Frequency Computer Component, Another, by Donald Herr, John Love and Norman Blumenstock ... 161
New Naval Industrial Engineering Organization, by R. E. W. Harrison 109
Obituary:
Admiral Forrest Percival Sherman, U.S.N. ... 735
Optimum Length of a Resonant Radio Frequency Transmission Line to Maximize Power Transfer; by Charles W. Harrison, Jr., and Arthur Grad ... 129
Organization, Industrial Engineering, New Naval, by R. E. W. Harrison 109
Peterson, Roy C., and A. D. Zakarian, T-45 Power Plant ... 555
Piping, Steam, High-Pressure, High-Temperature Welding Procedures for (Reprint) ... 69
Planning and Scheduling a CV 33 Class Aircraft Carrier at a Naval Shipyard by Dr. Gerald Paul Stone ... 11
Plastic Boat Programs, by Arthur C. Bushey, Jr. ... 873
Plastics, Synthetic, Hazards of (Reprint) ... 471
Potter, J. H., and W. W. Eitel; Thermal Bolt Stress Study in a High-Pressure Flanged Pipe Joint ... 541
Power Plant, Mobile, for Emergency Military or Civil Defense, by Carl J. Lamb ... 165
Power Plant, T-45, by A. D. Zakarian and Roy C. Peterson ... 555
Probing the Atmosphere With Rockets, by G. R. Hill ... 293
Propellers, Free Running, Effects of Scale and Roughness on, by Hermann W. Lerbs ... 58
Propellers, Singing, by C. W. Work ... 319
Purification of Diesel-Engine Fuels in Relation to Cylinder Liner Wear (Reprint) ... 1013
Radial Versus Axial Compressors (Reprint) ... 444
Radio Background of Radar (Reprint) ... 252
Radio Frequency Transmission Line, Resonant, Optimum Length of to Maximize Power Transfer, by Charles W. Harrison, Jr., and Arthur Grad ... 129
Radiometry and All-Weather Navigation, by J. S. Kelley and R. G. Stiles ... 381

PAGE

Range Meters, Meteorological, MKII and MKIII, by Dayton R. E. Brown ... 95
Recent Developments in Improving the Marine Borer Resistance of Lumber and Plywood Used in Planking Naval Vessels, by Tom L. Shoemaker ... 113
Research and Development, Turbine (Reprint) ... 1006
Research Problems, Welding, Current (Reprint) ... 991
Rockets, Probing the Atmosphere With, by G. R. Hill ... 293
Rover Gas Turbine (Reprint) ... 476
Rubber Hose Used in the Navy, by E. A. Bukzin ... 569
Russia's Icebreakers, by Bernard M. Kassell ... 137
Russia's Submarine Development (1850-1918), by Bernard M. Kassell ... 831
Scale and Roughness, Effects of on Free Running Propellers, by Hermann W. Lerbs ... 58
"Second Mile," by William E. Wickenden ... 517
Secretary's Notes ... 3, 287, 513, 745
Ship Motion, Statistical Approach to the Study of, by Homer S. Youngs 805
Shipyards, Biggest Weakness in Our War Potential (Reprint) ... 956
Shoemaker, Tom L.; Recent Developments in Improving the Marine Borer Resistance of Lumber and Plywood Used in Planning Naval Vessels ... 113
Shortage of Engineers, Developing (Reprint) ... 616
Singing Propellers, by C. E. Work ... 319
Stability Curves for New Design, by Stanislaw R. Uniechowski ... 311
Stabilizing Gear, Denny-Brown, in the P. and O. Twin-Screw Passenger Liner *Chusan* (Reprint) ... 460
Starters for Turbojet Engines (Reprint) ... 682
Statistical Approach to the Measurement and Analysis of Experimental Data, by Norman H. Jasper ... 583
Statistical Approach to the Study of Ship Motion, by Homer S. Youngs 805
Steam Piping, High-Pressure, High-Temperature, Welding Procedures for (Reprint) ... 692
Steam Valve Seats and Disks, Hard Facing of (Reprint) ... 488
Steel Balls, Utilization of for Launch (Reprint) ... 620
Steele, G. P. II; A New Essential for Victory at Sea ... 531
Stewart, Nathaniel; Meeting a Manpower Crisis in Naval Engineering 791
Stiles, R. G., and J. S. Kelley; Radiometry and All-Weather Navigation 381
Stone, Gerald Paul, Planning and Scheduling a CV 33 Class Aircraft Carrier at a Naval Shipyard ... 11
Submarine Development, Russia (1850-1918), by Bernard M. Kassell ... 831
Supercharging of Internal-Combustion Engines (Reprint) ... 480
Superheat Control, Factors Affecting (Reprint) ... 596
Synthetic Plastics, Hazards of (Reprint) ... 471
T-45 Power Plant, by A. D. Zakarian and Roy C. Peterson ... 555

PAGE

Technical Progress in Marine Engineering During 1950 (Reprint) ..... 666
Thermal Bolt Stress Study in a High-Pressure Flanged Pipe Joint, by J. H. Potter and W. W. Eitel ..... 541
"Theory of the Interior Ballistics of Guns," by J. Corner (Book Review) 274
Thrust Bearing, Kingsbury, Development of (Reprint) ..... 433
Thrust Deduction, by George P. Weinblum ..... 363
Torsional Vibration Problems of Geared Diesel Installations (Reprint) 634
Transmission Line, Resonant Radio Frequency; Optimum Length of to Maximize Power Transfer, by Charles W. Harrison, Jr., and Arthur Grad ..... 129
Transportation, Future Developments in (Reprint) ..... 414
Trends in Diesel Engine Development; by E. C. Magdeburger ..... 889
Turbojet Engines, Starters for (Reprint) ..... 682
Two New Economical Computers for the Design and Analysis of Servomechanisms, Networks, Amplifiers and Analogous Dynamical Systems, by Donald Herr ..... 851
Turbine Research and Development (Reprint) ..... 1006
Uniechowski, Stanislaw R.; Stability Curves for New Design ..... 311
Utilization of Steel Balls for Launching (Reprint) ..... 620
Vibration, Torsional, Problems of Geared Diesel Installations (Reprint) 634
Vincent, A. M., Magnetic Amplifiers, A Rising Star in Naval Electronics 903
Vortex Tube, The, by Seymour Comassar ..... 99
Water-Formed Deposits, Distinguishing Characteristics of, by Frank E. Clarke ..... 153
Wave Drag of Ships, by Max Otto Kramer ..... 575
Weinblum, George P., The Thrust Deduction ..... 363
Welding in American Engineering Education (Reprint) ..... 1019
Welding Procedures for High-Pressure, High-Temperature Steam Piping (Reprint) ..... 692
Welding Research Problems, Current (Reprint) ..... 991
What Price Speed? (Reprint) ..... 188
Wickenden, William, Second Mile ..... 517
Wood, Military Marine, Usage (Reprint) ..... 979
Work, C. W.: Singing Propellers ..... 319
Yards or Meters? Freedom to Measure (Reprint) ..... 984
Youngs, Homer S., Statistical Approach to the Study of Ship Motion ..... 805
Zakarian, A. D., and Roy C. Peterson; T-45 Power Plant ..... 555